

STATINTL

Contract Admin. - 159

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Daily

MEMORANDUM

6 April 1961

To: File, Project 159

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From:

Subj: Modification of Resection Problem and Changes
to Intersection Problem

A meeting was held on Monday, March 27, 1961 with the customer's representative concerning the Resection Problem. In order to change the convergence criteria as requested, substantial work would have to be performed by and a shift in the priority of tasks would have to be made.

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The customer's representatives decided not to request to change the convergence criteria in the program. However, they do wish us to change the output. This change will take less than one days work. The change is to output the four elements: a_{31} , a_{32} , a_{13} , a_{23} .

We have had several informal meetings with the customer's representatives on the new intersection program concerning approval of the flow chart, supply of test points and changes to the program. The flow chart has been approved, and test points have been supplied by the customer. The following changes to the original statement of the problem have been requested and are incorporated into the program:

Declass Review by NIMA/DOD

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Modifications

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(1) Change input B from M_{13} , M_{22} , M_{33} to M_{31} , M_{32} , M_{13} , M_{23} .

(2) The sign of M_{33} must be the same as the sign of Z.

(3) The final report should give the machine addresses of a and b.

(4) f is to be inputted in mm.

(5) X, Y, Z is to be inputted in feet or meters.

(6) Change equations for X, Y, Z to:

$$X = (N + h) \cos \phi \cos \lambda$$

$$Y = (N + h) \cos \phi \sin \lambda$$

$$Z = [N(1 - e^2) + h] \sin \phi$$

in which

$$N = \frac{a}{\sqrt{1 - e^2 \sin^2 \lambda}}$$

JW:cm